

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 1157

Roll No.

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**B.Tech.**

(SEM. I) ODD SEMESTER THEORY EXAMINATION 2013-14

**ENERGY, ENVIRONMENT AND ECOLOGY**

Time : 3 Hours

Total Marks : 80

**SECTION-A**

Attempt all parts of this question. Each part carries  
2 marks. (2×8=16)

1. (a) What are the basic components of ecosystem ?  
(b) How do you classify our natural resources ?  
(c) Which greenhouse gas other than methane is being produced by agricultural fields ?  
(d) Mention the purpose of mulching.  
(e) Define Eutrophication.  
(f) Classify all the different categories of pollutants with examples.  
(g) Which gas is produced during anaerobic digestion process ?  
(h) What is Endemism ? Give two examples of endemic species.

**SECTION-B**

Attempt any *three* parts of this question. Each part carries  
8 marks. (8×3=24)

2. (a) Describe the effects of deforestation. Explain the measures taken for its remedy to conserve forest wealth.

- (b) Discuss in brief the concept of 'Solid Waste Management' with the basic problems involved. Distinguish between the incineration and combustion methods of solid waste disposal.
- (c) Discuss how Population, Poverty and Pollution are interrelated to one another.
- (d) Comment on phenomenon of Global warming and Greenhouse effect. Discuss the effects of Global warming and Greenhouse effects and its remedial measures.
- (e) Define ecosystem and ecology. Explain its various components with their functions including flow of energy and direction orientation.

### SECTION-C

Attempt *all* questions of this Section. Each question carries 8 marks. (8×5=40)

- 3. Explain different types of Ecological Pyramids with suitable examples.

**OR**

Discuss the need for public awareness for the conservation and protection of environment.

- 4. How do we get electricity from the fossil fuels? Explain impacts of fossil fuels on environment.

**OR**

Discuss Nuclear Energy with its advantages and disadvantages.

- 5. Is 'equity' important for sustainable development? How does 'sustainability' relate to equity? Discuss.

**OR**

Discuss in detail the major environmental impacts of mineral extraction.

- 6. Enumerate various types of pollutants that cause pollution of water bodies. Suggest various measures to minimize water pollution.

**OR**

Explain waste water treatment plant with the help of diagram.

- 7. Discuss the salient features of Wildlife Protection Act.

**OR**

What is Environmental Impact Assessment? Discuss its importance in planning and implementation of engineering projects.